

MIL-C-3680C
30 June 1972
SUPERSEDING
MIL-C-3680B
27 June 1966

MILITARY SPECIFICATION

CASES, FLAGS AND GUIDONS, COTTON DUCK

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope.- This specification covers cotton duck protective cases for flags and guidons used by the Department of Defense.

1.2 Classification.- The cases covered by this specification shall be of the following types as specified (see 6.2):

- Type I - Case, Flag, Cotton Duck, Individual, President
- Type II - Case, Flag, Cotton Duck, Individual and Organizational, 4'-4" by 5'-6"
- Type III - Case, Flag, Cotton Duck, Individual or Organizational, 3' by 4'
- Type IV - Case, Flag, Cotton Duck, Individual or Identification, Automobile Flag
- Type V - Case, Flag, Cotton Duck, Guidon
- Type VI - Case, Flag, Cotton Duck, U.S. Army Flag

2. APPLICABLE DOCUMENTS

2.1 The following documents of the issue in effect on the date of invitation for bids or request for proposal form a part of this specification to the extent specified herein:

SPECIFICATIONS

FEDERAL

- C-F-206 - Felt, Sheet, Cloth, Felt, Wool, Pressed
- T-C-571 - Cord, Cotton, General and Special Purposes, Sash and Ventian Blind
- V-T-285 - Thread, Polyester
- QQ-N-281 - Nickel-Copper-Alloy, Bars, Plate, Rod, Sheet, Strip, Wire, Forgings and Structural and Special Shaped Sections
- UU-P-268 - Paper, Kraft, Untreated, Wrapping
- CCC-C-419 - Cloth, Duck, Cotton, Unbleached, Plied-Yarns, Army and Numbered

FSC8345

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CCC-D-950 - Dyeing and Aftertreating Processes for Cotton Cloth

DDD-L-20 - Label, For Clothing, Equipage, and Tentage (General Use)

PPP-B-601 - Box, Wood, Cleated-Plywood

PPP-B-636 - Boxes, Fiberboard

MILITARY

MIL-C-3133 - Cellular Elastomeric Materials, Fabricated Parts

MIL-T-43566 - Tape, Textile, Cotton, General Purposes, or in Colors

STANDARDS

FEDERAL

Fed. Std. 191 - Textile; Test Methods

Fed. Std. 751 - Stitches, Seams and Stitching

MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes

DRAWINGS

THE INSTITUTE OF HERALDRY

5-1-351 - Case, Flag, Cotton Duck

5-1-352 - Case, Cotton Duck, President's Colors and Automobile Flags

(Copies of specifications, standards and drawings required by the contractor in connection with a specific procurement function should be obtained from the procuring activity or as directed by the contracting officer.)

(Miniature copies of drawings 5-1-351 and 5-1-352, identified as figures 1 and 2 are attached for information purposes only.)

3. REQUIREMENTS

3.1 First article.- When specified (see 6.2), before production is commenced, a sample of the finished item shall be submitted or made available to the contracting officer or his authorized representative for examination and tests as specified in 4.2. The approval of the first article sample authorizes the commencement of production but does not relieve the manufacturer of responsibility for compliance with all applicable provisions of this specification. The first article shall be manufactured in the same manner and by the same facilities to be used for the production item.

3.2 Materials.- Materials shall conform to the referenced specifications and the requirements specified herein.

3.2.1 Cloth, cotton duck.- The cotton duck, with the exception of the duck used in the fabrication of the reinforcement of the top section of the

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case shall conform to type III of CCC-C-419 and shall weigh 8.25 ounces per square yard. The duck for the reinforcement in the top section of the case shall conform to type I, hard texture, No. 8 of CCC-C-419.

3.2.1.1 Color and treatment.- The color of the cotton duck shall be olive green 107 and shall match the standard shade sample (see 6.3). The duck shall be treated in accordance with class B of CCC-D-950. Inhibitor (i) shall be used for the mildew-resistant treatment.

3.2.2 Cotton tape.- The cotton tape for the case shall be 3/4 inch in width, match olive green 107 and shall conform to type I, class 4 of MIL-W-43566.

3.2.3 Thread.- The thread for all stitching or bartacking shall conform to type I or II, class 1, size F of V-T-285.

3.2.3.1 Color.- The thread shall be S-1 (Cable No. 66022) in color and shall show fastness to chlorine bleaching equal to or better than the standard sample (see 6.3). When no standard sample is available, the thread shall show good fastness to chlorine bleaching.

3.2.4 Cotton rope.- The 3/16 inch diameter cotton rope shall conform to class 2 of T-C-571, except the permissible range of the copper content shall be 0.13 percent to 0.40 percent and the shade imparted by the treatment shall be acceptable.

3.2.5 Felt.- The felt used in the protective cover for the type I case shall conform to type I, classification No. 16R3X of C-F-206 and shall be 1/16 inch in nominal thickness.

3.2.6 Sponge rubber.- The sponge rubber used in the protective cover for the type I case shall conform to RS12A of MIL-C-3133.

3.2.7 Monel.- The monel sheeting used for the protective cover of the type I case shall be .0131 inch nominal thickness and shall conform to class A of QQ-N-281.

3.3 Construction.- Cases shall be constructed in accordance with requirements of drawings 5-1-351 and 5-1-352, as applicable and the requirements specified herein.

3.3.1 Stitching.- All stitching shall conform to stitch type 301 of Fed. Std. 751 with 6 to 8 stitches to the inch. Thread breaks shall be back-stitched not less than one inch at each break or end except where the ends are turned under in a hem or held down by other stitching. Thread tension

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shall be maintained so that there will be no loose stitching and that the lock will be embedded in the center of the material sewed. All thread ends shall be trimmed.

3.3.2 Protective covering of type I case.- The protective covering of the type I case shall conform to the details and dimensions of drawing 5-1-352. The felt innerlining shall be cemented to the rubber sponge which in turn which in turn shall be cemented to the monel case. The monel case shall then be cemented to the inside of the flag case in the location shown on the drawing. Care should be taken to insure the adhesives used are designed for bonding of rubber to cloth and metal and of cloth to metal.

3.4 Marking.- The identification markings shall conform to the requirements for type IV, class 5 labels of DDD-L-20. In addition, the letters "U.S." shall be applied in the size characters indicated on the drawing and shall conform to the requirements for type IV, class 9 labels of DDD-L-20. Fastness shall be as specified for class 5 labels. Locations for all markings shall be as indicated on the drawings.

3.5 Workmanship.- Cases shall be clean, well made and shall meet the acceptable quality levels established by this specification.

4. QUALITY ASSURANCE PROVISIONS

4.1 Inspection responsibility.- Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 First article inspection.- When a first article is required; examination shall be made on a completely finished case for all provisions of this specification applicable to end item examination.

4.3 Inspection for acceptance.- Inspection for acceptance shall be in accordance with the provisions of MIL-STD-105, except where otherwise indicated.

4.3.1 Inspection of components.- The quality assurance provisions for component materials except as otherwise specified in this specification shall be in accordance with the applicable specifications and standards referenced herein. When a conflict occurs between this specification and the referenced specification this specification shall govern.

4.3.2 In-process inspection.- Inspection shall be made at any point or during any phase of the manufacturing process to determine whether operations or assemblies are carried out as specified. The Government reserves the right to exclude from consideration for acceptance any material or service for which in-process inspection has indicated nonconformance.

4.3.2.1 Intermediate inspection of protective covering.- Inspection of the assembled protective covering, type I case, shall be performed prior to attaching this component to the body of the case. Defects found in this examination shall be classified as follows: The sample unit shall be one metal case with the felt innerlining and the sponge rubber lining completely assembled and cemented. The inspection level shall be I and the AQL shall be 4.0 defects per hundred units.

EXAMINE

DEFECT

Case	Any noticeable defect on the surface of the case affecting serviceability. Felt, sponge and metal protective cover not assembled as specified. Edges of felt interlining not shaped as specified. Any part of assembly not securely cemented, i.e., any area of delamination in bonding between rubber and felt or rubber and metal. Dimension of cover more or less than 1/16 inch from specified dimensions. Exposed edges of felt and sponge uneven with the edge of the metal case opening by more than 1/16 inch.
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4.3.3 Inspection of end item.-

4.3.3.1 Visual examination of cases.- Defects found during examination shall be classified in accordance with 4.3.3.1.1 and 4.3.3.1.2. The lots shall be inspected in accordance with 4.3.3.1.3. The unit of product for these examinations shall be one completely fabricated case.

4.3.3.1.1 Examination for visual characteristics.-

Examine	Defects	Classification	
		Major	Minor
Fabrics	Holes, cuts or tears.....	x	-
	Fabric defects:		
	-seriously affecting serviceability or appearance.....	x	-
	-affecting serviceability or appearance, but not seriously.....	-	x
Seams and Stitching:			
Open seam	More than 1/4 inch, but less than 1/2 inch.	-	x
	More than 1/2 inch.....	x	-
NOTE: A seam shall be classified as open when one or more stitches joining a seam are broken or when two or more consecutive skipped stitches or run-offs occur. On double-stitched seams, a seam shall be considered open when either one or both sides of a seam are open.			
Raw edges (except on inside of case)	When securely caught in stitching:		
	-3/4 inch or more, but not more than 3 inches.....	-	x
	-3 inches.....	x	-
NOTE: Raw edges not securely caught in stitching shall be classified as open seams.			
Run-offs (See open seams)			
Seam and stitch types	Wrong seam or stitch type.....	x	-
Stitch tension	Loose, resulting in a loose seam.....	x	-
	Loose, resulting in a loosely exposed top or bobbin thread; tight, resulting in excessive puckering of fabric on seams....	-	x
Stitches per inch	One or two stitches less than minimum specified.....	-	x
	Three or more stitches less than minimum specified.....	x	-
	One or more stitches in excess of maximum specified.....	-	x
	NOTE: Variation in the number of stitches caused by the operator's speeding up the machine and pulling the fabric in order to sew over heavy seams, heavy places or in turning corners shall be classified as follows:		
(a) Within the major defect classification - minor defect.			

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Examine	Defects	Classification	
		Major	Minor
	(b) Within the minor defect classification - no defect.		
Stitching margins	On margins required to finish 1/8 inch or more, under or over specified width by more than 1/16 inch; on margins required to finish 1/16 inch, less than specified width.....	-	x
Stitching gage	Under or over specified width by more than 1/16 inch.....	-	x
Stitching ends	Not backstitched.....	x	-
Thread breaks	Backstitched less than one inch.....	-	x
Components and assembly	Any required detail of construction, any component or part of case omitted (unless otherwise classified herein).....	x	-
	Needle chews which may develop into holes..	x	-
	Seams badly puckered or excessively pleated.....	-	x
	One or more required rows of stitching omitted except on boxstitching at corner of opening.....	x	-
	Boxstitching incomplete:		
	-one row of stitching omitted.....	-	x
	-two or more rows of stitching omitted....	x	-
	-length of boxstitching less than specified by more than 1/8 inch.....	-	x
Marking	Omitted, illegible, incorrect or misplaced.	-	x
Cleanness	Grease or oil stains clearly noticeable; thread ends not trimmed throughout.....	-	x
Details of construction:			
Bottom section, all types:			
Hem	Formed on outside of case.....	-	x
	Hems required to finish one inch, less than specified width by more than 1/8 inch; hems required to finish 1-1/2 inches, less than specified width by more than 1/4 inch	-	x
Cord:			
All types	Cuts or abrasions.....	x	-
	Spliced.....	-	x
	Cut length less than specified by more than 3/4 inch.....	-	x
	Not caught in base of triangle stitching....	-	x
	Free ends of cord uneven in length by more than one inch.....	-	x
	Free ends of cord not knotted.....	-	x

Examine Defects		Classification	
		Major	Minor
Opening at end of closing seam, all types	Under or over specified length by 1/2 inch or more (from end of bottom opening).....	-	x
Tie tapes (type I only)	Not firmly and tightly woven; edges frayed or scalloped.....	x	-
	Folded portion of tapes not inserted or not caught in closing seam.....	-	x
	Free ends of tape unfinished.....	-	x
	Finished length of tapes less than 15 inches.....	-	x
	Set beyond location indicated on drawing by more than 1/4 inch.....	-	x
Pocket (type I only)	Omitted.....	x	-
	Stitching forming pocket out of alignment with inner row of stitching on seam closing top section by 1/8 inch or more; not parallel with closing body seam by 1/8 inch or more.....	-	x
Top section: Types II, III, V and VI	Set to body with pointed end off centerline by 1/4 inch or more.....	-	x
	NOTE: This examination shall be made by folding body and top section in half.		
Types I and IV	Radius of rounded end irregular or not uniform at both sides.....	-	x
All types	Length of top section less than specified by more than 1/4 inch from edge of seam joining top to body to peak of section...	-	x
Protective covering (type I only)	Not securely cemented to duck (inner plies of top section on both surfaces).....	x	-
	Any part of opening obstructed, failing to serve intended purpose.....	x	-
	NOTE: This examination shall be performed with the case turned inside out.		

4.3.3.1.2 Defects in dimensions.- Any dimensions that is not within the specified tolerance shall be classified as a defect.

4.3.3.1.3 Inspection levels and acceptable quality levels (AQL's).- The inspection levels and the AQL's expressed in defects per hundred units shall be classified as follows:

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	Inspection level	AQL Major	Total
For defects applicable to 4.3.3.1.1	II	2.5	6.5
For defects applicable to 4.3.3.1.2	S-3	(one class)	4.0

4.3.3.2 Examination of preparation for delivery requirements.- An examination shall be made to determine that packaging, packing and marking requirements of section 5 of this specification are complied with. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully prepared for delivery with the exception it need not be sealed. Defects of closure listed below shall be examined on shipping containers fully prepared for delivery. The lot size shall be the number of containers in the end item inspection lot. The inspection level shall be S-2 and the AQL shall be 2.5 defects per hundred units.

<u>Examine</u>	<u>Defects</u>
Markings (exterior and interior)	Omitted, incorrect, illegible, of improper size, location, sequence or method of application.
Materials	Any component missing.
	Any component damaged affecting serviceability.
Workmanship	Inadequate application of components, such as: incomplete closure of case liners, container flaps, loose strapping, inadequate stapling.
	Bulging or distortion of containers.
Content	Number per container is more or less than required.

4.4 Tests.- Methods of testing shall be in accordance with Fed. Std. 191, where applicable.

5. PREPARATION FOR DELIVERY

5.1 Packaging.- Packaging shall be level A or C, as specified (see 6.2).

5.1.1 Level A.-

5.1.1.1 Unit packaging.-

5.1.1.1.1 Type I.- Each type I case shall be folded in half three times in the length wise direction and completely wrapped in minimum weight 30 pound kraft paper conforming to grade B of UU-P-268. The wrap shall be secured by 2 inch minimum gummed paper tape. Each case shall then be packaged in a snug-fitting, fiberboard box conforming to class Domestic, grade 200 of PPP-B-636. Closure shall be in accordance with method II of the appendix of the container specification.

5.1.1.1.2 Types II, III, IV, V and VI.- Each type II, III, IV, V and VI case shall be folded in the length wise direction into a unit approximately 16 inches in length and packaged in a snug-fitting polyethylene bag or envelope. The polyethylene film shall be a minimum of 0.003 inch thick. All seams and closures shall be effected by heat sealing. Prior to or during the heat sealing operation excess air within the bag shall be expelled.

5.1.1.2 Intermediate packaging.-

5.1.1.2.1 Type II, III, IV, V and VI.- Twenty cases of one type only, folded as specified in 5.1.1.1.2 shall be placed in a snug-fitting, fiberboard box conforming to class Domestic, grade 275 of PPP-B-636.

5.1.2 Level C.- Cases shall be packaged in a manner which will afford adequate protection against deterioration and physical damage during shipment from the supply source to the first receiving activity for immediate use or controlled humidity storage. The supplier's commercial practice will be acceptable when it fulfills the above requirements.

5.2 Packing.- Packing shall be level A, B or C, as specified (see 6.2).

5.2.1 Level A.-

5.2.1.1 Type I.- No packing required.

5.2.1.2 Type II, III, IV, V and VI.- One hundred and sixty type II or III cases (8 bundles), four hundred type IV or V cases (20 bundles) or eighty type VI cases shall be packed in a snug-fitting shipping container conforming to the overseas type, style A or B of PPP-B-601, except the requirements for additional battens or cleats shall not apply or shall conform to type SF, grade V2s of PPP-B-636. Only one type, style and size of shipping container shall be used for any one item or any one contract.

5.2.2 Level B.- Cases of one type only packaged as specified in 5.1 shall be packed as specified in 5.2.1, except the shipping container shall conform to PPP-B-601, domestic type, style A or B or class domestic, grade 275 of PPP-B-636.

5.2.3 Level C.- Cases packaged as specified in 5.1, shall be packed in a manner to insure carrier acceptance and safe delivery at destination at the lowest transportation rate for such supplies. Shipping containers shall be in accordance with the rules and regulations applicable to the mode of transportation.

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5.3 Marking.- In addition to any special marking required by the contract or order, unit packages, intermediate packages and shipping containers shall be marked in accordance with the requirements of MIL-STD-129.

6. NOTES

6.1 Intended use.- The cases covered by this specification are intended to be used for protection of flags and guidons while not in use.

6.2 Ordering data.- Purchasers should exercise any desired options offered herein and procurement documents should specify the following:

6.2.1 Procurement requirements.-

- (a) Title, number and date of this specification.
- (b) Type case required (see 1.2).
- (c) When a preproduction sample is not required (see 3.1).
- (d) Selection of applicable levels of packaging and packing (see 5.1 and 5.2).

6.2.2 Contract data requirements.- Data conforming to Department of Defense Data Item Descriptions DI-R-4803, DI-R-4805, DI-T-4901, DI-T-4902, DI-T-4903 and DI-T-4904 will usually be required for delivery in connection with this specification for Marine Corps procurements. For other than Marine Corps procurement, the cognizant procuring activity will provide comparable Data Item Descriptions. When so required, such data will be specified for delivery on a DA-1423 included in the contract.

6.3 Standard shade sample.- Standard samples of cloth and thread may be obtained from the procuring activity issuing the invitation for bids.

Custodians:

Army - IH
Navy - MC
Air Force - 82

Review Activities:

Navy - MC
Air Force - 82
Other - CT

User Activities:

Army - SM
Navy - SA

Preparing Activity:

The Institute of Heraldry,
United States Army

Project No. 8345-0078

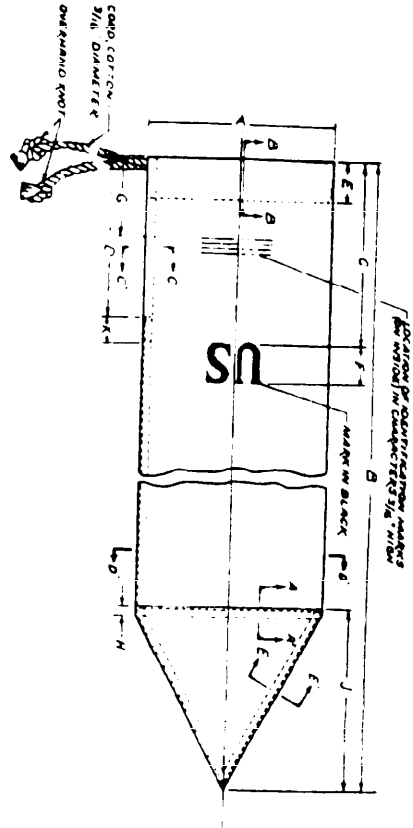
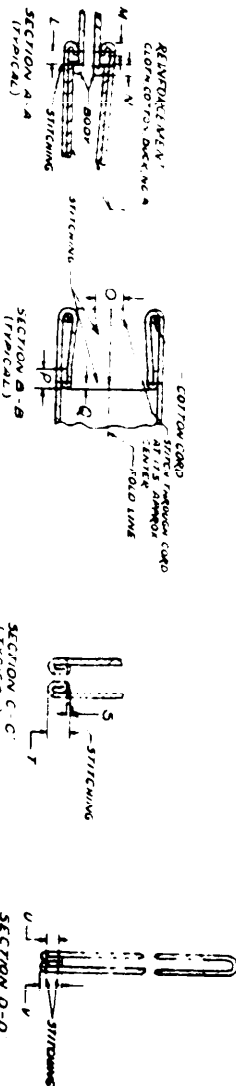


FIGURE 1



CASE	DIMENSIONS																CORD COTTON
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
TYPE II	7"	3/4"	7"	6 1/2"	1 1/2"	1 1/2"	3"	3/8"	7"	1"	1"	1/4"	1/4"	1/4"	1/4"	1/4"	CUT 30 LONG
TYPE III	7"	4/5"	7"	6 1/2"	1 1/2"	1 1/2"	3"	3/8"	7"	1"	1"	1/4"	1/4"	1/4"	1/4"	1/4"	CUT 30 LONG
TYPE V	4 1/2"	6"	5"	4"	1"	1 1/2"	3"	3/8"	4"	1"	1"	1/4"	1/4"	1/4"	1/4"	1/4"	CUT 24 LONG
TYPE VI	4 1/2"	5/8"	7"	6"	1 1/2"	1 1/2"	4"	3/8"	8 1/2"	1"	1"	1/4"	1/4"	1/4"	1/4"	1/4"	CUT 48 LONG

NOTE:
1. THIS SPECIFICATION IS A REVISION OF THE PREVIOUS EDITION OF MIL-C-3680C.
2. THE FOLLOWING SPECIFICATIONS ARE APPLICABLE TO THE COTTON CORD SPlice MARKED FOR SECTION FOR COMPLETION OF 3/16 INCH.
3. THE FOLLOWING SPECIFICATIONS ARE APPLICABLE TO THE COTTON CORD SPlice MARKED FOR SECTION FOR COMPLETION OF 3/16 INCH.
4. THE FOLLOWING SPECIFICATIONS ARE APPLICABLE TO THE COTTON CORD SPlice MARKED FOR SECTION FOR COMPLETION OF 3/16 INCH.
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REVISIONS FROM REV. 1 TO REV. 2: 1. THE FOLLOWING SPECIFICATIONS ARE APPLICABLE TO THE COTTON CORD SPlice MARKED FOR SECTION FOR COMPLETION OF 3/16 INCH.

REVISIONS FROM REV. 2 TO REV. 3: 1. THE FOLLOWING SPECIFICATIONS ARE APPLICABLE TO THE COTTON CORD SPlice MARKED FOR SECTION FOR COMPLETION OF 3/16 INCH.

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